

**WHAT IS CLAIMED IS:**

- 1           1.     A tool for use by a machinist in testing the accuracy of a workpiece  
2     comprising an elongated member having an edge for abutment with the workpiece  
3     to be tested, an encased light source and a plurality of passages extending within  
4     said member from said light source to said edge for conducting light emitted from  
5     said source to an array of apertures spaced at intervals in a bevel of said edge, said  
6     array of apertures directing the light at the workpiece on one side of said edge  
7     whereby defects in accuracy are illuminated to a machinist viewing the workpiece  
8     from another side of said edge.
  
- 1           2.     A tool according to claim 1, said member having a chamber therein  
2     encapsulating said light source.
  
- 1           3.     A tool according to claim 1 further comprising a plurality of fiber optic  
2     cords extending in said passages from said light source to said apertures.
  
- 1           4.     A tool according to claim 1, said member being a machinist's straight  
2     edge.
  
- 1           5.     A tool according to claim 1, said member being a machinist's square.

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1           6.     A tool for use by a machinist in testing the accuracy of a workpiece  
2     comprising an elongated member having lengthwise opposite first and second  
3     edges for abutment with the workpiece to be tested, an encased light source and  
4     first and second pluralities of passages extending within said member from said light  
5     source to first and second bevels of said first and second edges, respectively, for  
6     conducting light emitted from said source to first and second arrays of apertures,  
7     respectively, spaced at intervals in said first and second bevels, respectively, said  
8     first and second arrays of apertures directing the light at the workpiece on one side  
9     of their respective edge whereby defects in accuracy are illuminated to a machinist  
10    viewing the workpiece from another side of their respective edge.

1           7.     A tool according to claim 6, said member having a chamber therein  
2     encapsulating said light source.

1           8.     A tool according to claim 6 further comprising a plurality of fiber optic  
2     cords extending in said passages from said light source to said apertures.

1           9.     A tool according to claim 6, said member being a machinist's straight  
2     edge.

1           10.    A tool according to claim 6, said member being a machinist's square.

1           11.    A tool according to claim 6, said bevels of said first and second edges  
2     being on opposite faces of said member.

1           **12.**   A tool for use by a machinist in testing the accuracy of a workpiece  
2 comprising an elongated member having an edge for abutment with the workpiece  
3 to be tested, said edge having a lengthwise cavity therein, an encased light source  
4 and a plurality of passages extending within said member from said light source for  
5 conducting light emitted from said source to an array of apertures spaced at  
6 intervals in said cavity, said array of apertures directing the light at the workpiece  
7 whereby defects in accuracy are illuminated from within said edge to a machinist  
8 viewing the workpiece from a position outside of said edge.

1           **13.**   A tool according to claim **12**, said member having a chamber therein  
2 encapsulating said light source.

1           **14.**   A tool according to claim **12** further comprising a plurality of fiber optic  
2 cords extending in said passages from said light source to said apertures.

1           **15.**   A tool according to claim **12**, said member being a machinist's straight  
2 edge.

1           **16.**   A tool according to claim **12**, said member being a machinist's square.

1           **17.**   A tool for use by a machinist in testing the accuracy of a workpiece  
2 comprising an elongated member having an edge for abutment with the workpiece  
3 to be tested, said edge having a lengthwise cavity therein, and at least one light  
4 source within said member dispersing light into said cavity, said cavity directing the  
5 light at the workpiece whereby defects in accuracy are illuminated from within said  
6 edge to a machinist viewing the workpiece from a position outside of said edge.